

What is claimed is:

1. A method for verification of operation of an air management controller system having a thermostat, comprising:
 - connecting a personal digital assistant to the thermostat;
 - uploading configuration information from the thermostat to the personal digital assistant; and
 - executing diagnostics relative to sensors, fan process, cooling process and heating process, with the personal digital assistant.
2. The method of claim 1, further reporting results of the diagnostics as OK, untested or failed for the sensor, the fan process, the cooling process and the heating process.
3. The method of claim 2, further comprising:
 - turning off normal controller delays; and
 - temporarily overriding sensor inputs and set points;
 - and

wherein the turning off the normal controller delays and temporarily overriding sensor inputs and set

points are performed prior to executing the diagnostics.

4. The method of claim 3, wherein executing the diagnostics relative to the sensors comprises:

confirming a room temperature data value;
validating a remote set point value;
confirming a room relative humidity value.

5. The method of claim 4, wherein executing the diagnostics relative to the cooling process comprises:

confirming that a fan is running;
validating the cooling process; and
validating cooling equipment of the cooling process.

6. The method of claim 5, wherein executing the diagnostics relative to the heating process comprises confirming activation of a heating stage.

7. The method of claim 5, wherein connecting the personal digital assistant to the thermostat is performed with a wireless medium.

8. An apparatus for diagnosis of a thermostat system, comprising:

 a personal digital assistant (PDA) connected to a thermostat of the thermostat system; and
 a program in a memory for diagnosis of the thermostat system;

wherein:

 the PDA performs the following tasks:
 uploading a thermostat configuration;
 disabling delays of functions in the thermostat system;
 overriding sensor inputs and set points; and
 testing sensors, a cooling process and a heating process.

9. The apparatus of claim 8, wherein testing sensors comprises:

 confirmation of temperature values as indicated by the thermostat; and
 validation of set points.

10. The apparatus of claim 9, wherein the testing of sensors further comprises validation of relative humidity

values as indicated by the thermostat.

11. The apparatus of claim 10, wherein the testing of the cooling process comprises:

- initiating a cooling test;
- confirming a running of a cooling fan;
- collecting data on time intervals, cooling coil temperatures and discharge air temperatures; and
- determining from the data whether the cooling process is satisfactory or not.

12. The apparatus of claim 11, wherein the testing of the heating process comprises:

- initiating a heating test;
- selecting a type of heating;
- confirming a running of the fan if needed for a selected type of heating;
- activating a heating stage; and
- validating an output of heat from the heating stage.

13. The apparatus of claim 12, wherein the PDA is connected to the thermostat via an infrared connection.

14. A method for testing a thermostat system via a personal digital assistant (PDA) comprising:

uploading configuration information about the thermostat system to the PDA;

turning off controller delays;

overriding sensor inputs and set point;

testing sensors, fan, and cooling and heating equipment; and;

reporting the working status of the sensors, fan, and cooling and heating equipment.

15. The method of claim 14, wherein the testing of the sensors comprises:

validating indications of temperature sensors in various locations;

validating values of temperature set points for a sample of set point settings;

validating temperature set points for at least one setting; and

validating indications of at least one humidity sensor.

16. The method of claim 15, wherein the testing of the fan

comprises:

turning on the fan via the PDA;
verifying that the fan is on;
turning off the fan via the PDA; and
verifying that the fan is off.

17. The method of claim 16, wherein the testing of the cooling equipment comprises:

turning on the fan via the PDA;
confirming operation of the fan;
turning on the cooling equipment via the PDA;
collecting time and temperature data about the cooling equipment; and
determining whether operation of the cooling equipment is adequate.

18. The method of claim 17, wherein the testing of the heating equipment comprises:

making a determination whether the fan is to be operating or not, and effecting a fan operational status according to the determination;
turning on the heating equipment;
collecting time and temperature data about the heating

equipment; and

determining whether operation of the heating equipment
is adequate.

19. The method of claim 18, further comprising displaying
a report of the testing of the sensors, set points, fan,
cooling equipment and heating equipment.

20. The method of claim 19, further comprising restoring
original operating parameters to the thermostat system.

21. The method of claim 20, wherein the PDA is connected
to the thermostat system via a wireless medium.

22. A method for verification of operation of an air
management controller system having a thermostat,
comprising:
connecting a personal digital assistant to the
thermostat;
uploading configuration information from the
thermostat to the personal digital assistant; and
executing diagnostics relative to sensors, with the
personal digital assistant.

23. A method for verification of operation of an air management controller system having a thermostat, comprising:

 connecting a personal digital assistant to the thermostat;
 uploading configuration information from the thermostat to the personal digital assistant; and
 executing diagnostics relative to a fan process, with the personal digital assistant.

24. A method for verification of operation of an air management controller system having a thermostat, comprising:

 connecting a personal digital assistant to the thermostat;
 uploading configuration information from the thermostat to the personal digital assistant; and
 executing diagnostics relative to a cooling process, with the personal digital assistant.

25. A method for verification of operation of an air management controller system having a thermostat,

comprising:

connecting a personal digital assistant to the thermostat;
uploading configuration information from the thermostat to the personal digital assistant; and executing diagnostics relative to a heating process, with the personal digital assistant.

26. A method for verification of operation of an air management controller system having a thermostat, comprising:

connecting a personal digital assistant to the thermostat;
uploading configuration information from the thermostat to the personal digital assistant; and executing diagnostics relative to sensors, fan process, cooling process and/or heating process, with the personal digital assistant.

27. The method of claim 26, further reporting results of the diagnostics as OK, untested or failed for the sensor, the fan process, the cooling process and the heating process.

28. The method of claim 27, further comprising:
turning off normal controller delays; and
temporarily overriding sensor inputs and set points;
and
wherein the turning off the normal controller delays
and temporarily overriding sensor inputs and set
points are performed prior to executing the
diagnostics.

29. A method for verification of operation of an air
management controller system having a thermostat,
comprising:
connecting a personal digital assistant to the
thermostat;
uploading configuration information from the
thermostat to the personal digital assistant; and
executing diagnostics relative to sensors, fan
process, cooling process, heating process, and
system wiring with the personal digital
assistant.

30. The method of claim 29, further reporting results of

the diagnostics as OK, untested or failed for the sensor,
the fan process, the cooling process and the heating
process and wiring connecting thermostat controls to the
fan process, cooling process and heating process.